

### REMARKS

The Examiner provisionally rejected claims 1 and 4 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over co-pending Application No. 10/323,503; rejected claims 1-7 under 35 U.S.C. § 102(e) as being anticipated by Tan et al. (US 6,812,688) ("Tan"). Applicants hereby amend claim 1; cancel claims 4-6. Claims 1-3 and 8-14 remain in the case.

#### Amendment to Claim 1

Applicants hereby amend claim 1 in order to add the requirement that each test and measurement instrument comprises "a trigger circuit for developing a trigger signal in response to said signal under test" and that the "trigger enable signal" is developed "in response to said trigger signal." No new matter has been added through this amendment, as the specification states that each of the "acquisition devices 110" contains a "trigger circuit 109" which produces a "trigger output signal." (See page 3, lines 20-29 in the original application as filed.)

Applicants further amend claim 1 in order to correct a minor antecedent basis error. That is, the "second test and measurement" now properly receives "said combined trigger signal." No new matter has been added through this amendment.

#### Provisional Rejection of Claims 1 and 4 for Obviousness-Type Double Patenting

The Examiner provisionally rejected claims 1 and 4 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over co-pending Application No. 10/323,503. Claim 4 has been cancelled, thereby rendering the provisional rejection moot, however claim 1 remains in the case. The Examiner believes that both co-pending Application No. 10/323,503 and the present application must be terminally disclaimed.

Accordingly, Applicants hereby submit a Terminal Disclaimer for the present application in accordance with 37 C.F.R. § 1.321(c). Applicants submit that co-pending Application No. 10/323,503 is commonly owned with the present application by virtue of an Assignment Declaration in each application assigning all right title and interest in the inventions to Tektronix, Inc. The Assignment Declaration in each application will be submitted for recording when a Notice of Allowance is received. Applicants submit that the

grounds for the rejection have been overcome, and therefore request that the provisional rejection be withdrawn.

Rejection of Claims 1-7 Under 35 U.S.C. § 102(e)

The Examiner rejected claims 1-7 under 35 U.S.C. § 102(e) as being anticipated by Tan. Claims 4-6 have been cancelled thus rendering their rejection moot. The rejection of claim 7 is improper because claim 7 was cancelled in the previous response dated March 9, 2006. With regard to claims 1-3, Applicants again respectfully traverse on the ground that Tan does not teach, show, or suggest all the limitations of claims 1-3.

With regard to claim 1 as amended: First, Tan cannot *possibly* teach, show, or suggest “a first test and measurement instrument having ... a trigger circuit” and “a second test and measurement instrument having ... a trigger circuit” because Tan teaches only one trigger circuit 140, as is shown plainly in Figure 1 and described at column 2, lines 58-59.

Second, Tan does not teach, show, or suggest “a first test and measurement instrument having ... a transceiver” and “a second test and measurement instrument having ... a transceiver.” The Examiner asserts that Tan’s TIE function 132, Eye Function 134, Mask Function 136, and PLL function 138 are equivalent to Applicants’ transceiver but Applicants cannot agree. Tan’s 132-138 are software “testing functions.” (See e.g. “software implemented phase locked loop (PLL) function” at column 3, lines 13-30 and “software instructions necessary for executing the TIE function 132, eye diagram generation function 134, and the mask testing function 136” at column 6, 22-49.) In contrast, Applicants’ transceiver is a hardware transmitter/receiver. (See page 12, lines 31-32 in the original application as filed: “...a bi-directional transceiver [which] receive[s] ... and transmit[s]” signals. Also see “The Art of Electronics,” Paul Horowitz and Winfield Hill, second edition, 1989, page 801, which describes transceivers as “bidirectional buffers.”) Software “testing functions” and hardware buffers are *entirely different things*. If the Examiner wishes to maintain the position that Tan’s TIE function 132, Eye Function 134, Mask Function 136, and PLL function 138 are equivalent to Applicants’ “transceiver,” the Examiner is invited to produce evidence to support that position.

Third, Tan does not teach, show, or suggest “a first test and measurement instrument having ... a transceiver for developing a trigger enable signal” and “a second test and measurement instrument having ... a transceiver for developing a trigger enable signal.” The Examiner asserts that Tan’s signals AS<sub>1</sub> and AS<sub>2</sub> are equivalent to Applicants’ “trigger enable signals” but Applicants cannot agree. AS<sub>1</sub> and AS<sub>2</sub> are Acquired Sample streams, that is,

digitized values representing an analog signal. (See column 2, line 60 - column 3, line 2.) In contrast, Applicants' "trigger enable signals" indicate the occurrence of a triggering condition, e.g. a "logic sequence" or an "analog trigger condition." (See page 5, lines 10-20 in the original application as filed.) Furthermore, 132-138 (which the Examiner asserts to be transceivers) do not "develop" signals AS<sub>1</sub> and AS<sub>2</sub>. Rather, 132-138 receive AS<sub>1</sub> and AS<sub>2</sub>, as is plainly evident from the direction of the arrows on AS<sub>1</sub> and AS<sub>2</sub> in Figure 1. If the Examiner wishes to maintain the position that Tan's signals AS<sub>1</sub> and AS<sub>2</sub> are equivalent to Applicants' "trigger enable signals", the Examiner is invited to produce evidence to support that position.

Fourth, Tan does not teach, show, or suggest "a first test and measurement instrument having ... a transceiver for ... receiving a combined trigger signal" and "a second test and measurement instrument having ... a transceiver for ... receiving said combined trigger signal." The Examiner asserts that Tan's signal T is equivalent to Applicants' "combined trigger signal" but Applicants cannot agree. Applicants' "combined trigger signal" is derived from the trigger enable signals. (See claim 1: "...logically combining said trigger enable signals ... to generate said combined trigger signal...") Not only does Tan not teach "trigger enable signals" (as discussed in the previous paragraph), but Tan's signal T is derived from entirely different signals (either an external trigger input EXT TRIG, analog input signals DATA1 or DATA2, or a clock recovered from either) as is readily apparent from Figure 1 and column 3, lines 39-43. If the Examiner wishes to maintain the position that Tan's signal T is equivalent to Applicants' "combined trigger signal," the Examiner is invited to produce evidence to support that position.

For all these reasons, Tan does not teach, show, or suggest Applicants' invention as described in claim 1:

"A system for triggering a plurality of test and measurement instruments substantially simultaneously, comprising:

a first test and measurement instrument having an input for receiving a signal under test, a trigger circuit for developing a trigger signal in response to said signal under test, and a transceiver for developing a trigger enable signal in response to said trigger signal and receiving a combined trigger signal;

a second test and measurement instrument having an input for receiving a signal under test, a trigger circuit for developing a trigger signal in response to said signal under test, and a transceiver for developing a trigger enable signal in response to said trigger signal and receiving said combined trigger signal; and

circuitry for logically combining said trigger enable signals of said first and second test and measurement instruments to generate said combined trigger signal, the

circuitry for combining having a first and second transceivers for receiving said trigger enable signals and transmitting said combined trigger signal;  
wherein each of said test and measurement instruments is coupled to said circuitry for combining via a cable, said trigger enable signal and said combined trigger signal being conveyed in mutually opposite directions through said cable; and  
said first and second test and measurement instruments acquire data samples of said signals under test in response to said combined trigger signal.”

Thus, Tan does not anticipate claim 1. Applicants therefore request that the rejection of claim 1 under 35 U.S.C. § 102(e) be withdrawn.

With regard to claim 2, claim 2 depends from independent claim 1 and is patentable for that reason alone. Furthermore, claim 2 is patentable in its own right because Tan does not teach, show, or suggest all of the requirements of claim 2:

First, Tan does not teach, show, or suggest a “variable impedance device.” The Examiner asserts that Tan’s TIE function 132, Eye Function 134, Mask Function 136, and PLL function 138 constitute a variable impedance device but Applicants cannot agree for all the reasons discussed above in regard to claim 1’s requirement of a “transceiver.” If the Examiner wishes to maintain the position that Tan’s 132-138 is equivalent to Applicants’ “variable impedance device,” the Examiner is invited to produce evidence to support that position.

Second, Tan does not teach, show, or suggest a “constant current source.” The Examiner asserts that this requirement is met by Tan’s support circuits 320. (Applicants note that the Examiner had previously asserted that the constant current source was contained in Tan’s input unit 160.) Applicants cannot agree. Tan describes the support circuits to be “conventional support circuitry such as power supplies, clock circuits, cache memory and the like” for processor 330. (See column 5, lines 33-36.) Tan does not mention a “constant current source” in the cited text. If the Examiner wishes to maintain the position that Tan’s support circuits 320 contains a “constant current source,” the Examiner is invited to produce evidence to support that position.

Third, Tan *certainly* does not teach, show, or suggest “a series combination of a variable impedance device, a switch and a constant current source.” The elements which the Examiner asserts to be a variable impedance device (132-128) and a switch (142) are only connected by control signal C2 (certainly not “a series combination”) and the element which the Examiner asserts to be a constant current source (320) is contained within control circuit 300 which is actually an *alternative* for 132-138. (See column 5, lines 28-29.) This combination is certainly not the “series combination” required by claim 2.

Accordingly, Tan does not teach, show, or suggest Applicants' invention as described in claim 2:

"The system of claim 1, wherein said transceivers comprise:  
a series combination of a variable impedance device, a switch and a constant current source; wherein:  
a junction of said variable impedance device and said switch is adapted to transmit said trigger enable signal."

Thus, Tan does not anticipate claim 2. Applicants therefore request that the rejection of claim 2 under 35 U.S.C. § 102(e) be withdrawn.

With regard to claim 3, claim 3 depends from dependent claim 2 and is patentable for that reason alone. Applicants therefore request that the rejection of claim 3 under 35 U.S.C. § 102(e) be withdrawn.

#### Conclusion

In view of the foregoing remarks, allowance of claims 1-3 and 8-14 is urged, and such action and the issuance of this case are requested.

Respectfully submitted,

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